

IMPROVED COMPOSITIONS AND METHODS FOR  
PRODUCING ANTIBODIES TO LOW MOLECULAR WEIGHT ANALYTES

ABSTRACT OF THE DISCLOSURE

5           Improved immunogenic compositions and methods  
for producing antibodies to low molecular weight  
analytes are presented. In one series of embodiments  
particularly useful for production of antibodies having  
specificity for metal ions, nonimmunogenic polymers  
10 having natural metal ion-binding activity, typically  
alginates, are used, after contact with metal ions, as  
an immunogenic composition. In another series of  
embodiments, immunogens are enmeshed in a crosslinked  
protein network to create a potent immunogenic  
15 composition. In the latter embodiments, gelatins of  
cold-water fish prove surprisingly efficacious.